

## **REMARKS**

This amendment and these remarks are responsive to the Office action dated June 12, 2003. Claims 1-26 are pending in the application. In the Office action, the Examiner rejected all of the pending claims under 35 U.S.C. § 102 or 103, as follows:

- Claims 1-4 and 6-26 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,760,900 to Ito et al.
- Claim 5 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Ito et al.

Applicants traverse these rejections. Nevertheless, to expedite the issuance of a patent, and to more particularly point out and distinctly claim aspects of the invention, applicants have amended claims 1, 3, 5-8, 17, 18, and 21-25, reserving their right to pursue these claims as originally filed in a continuation application. Moreover, applicants present arguments below showing that the claims are neither anticipated nor obvious. Accordingly, applicants respectfully request reconsideration of the application, and prompt issuance of a notice of allowance.

### **I. Claim Rejections – 35 U.S.C. § 102**

#### **A. Claims 1-20**

The Examiner rejected independent claim 1 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,760,900 to Ito et al. ("Ito"). Applicants disagree, contending that the claim is patentable as written. Nevertheless, to expedite issuance of a patent, and to more particularly point out and distinctly claim aspects of the invention, applicants have amended claim 1.

Currently amended claim 1 is directed to a method of performing optical analysis on a plurality of compositions. The method includes, in part, a step of positioning the

plurality of compositions automatically at an examination site in a multi-mode instrument. The compositions are disposed in a two-dimensional array. Amended claim 1 is supported by original claim 1, disclosure in the present application (see, e.g., page 30, lines 9-17, and page 31, lines 1-2, among others), and disclosure in parent application Serial No. 09/629,599, which is incorporated by reference in the present application, and is now U.S. Patent No. 6,469,311 (see, e.g., col. 8, lines 10-14, col. 10, line 67 to col. 11, line 2, col. 39, lines 52-55, and claim 18, among others, of the '311 patent). In contrast, Ito does not teach or suggest positioning compositions at an examination site, with the compositions disposed in a two-dimensional array.

Ito relates to a system for optically measuring specimens. Figure 2, reproduced below, shows an embodiment of a portion of the system.

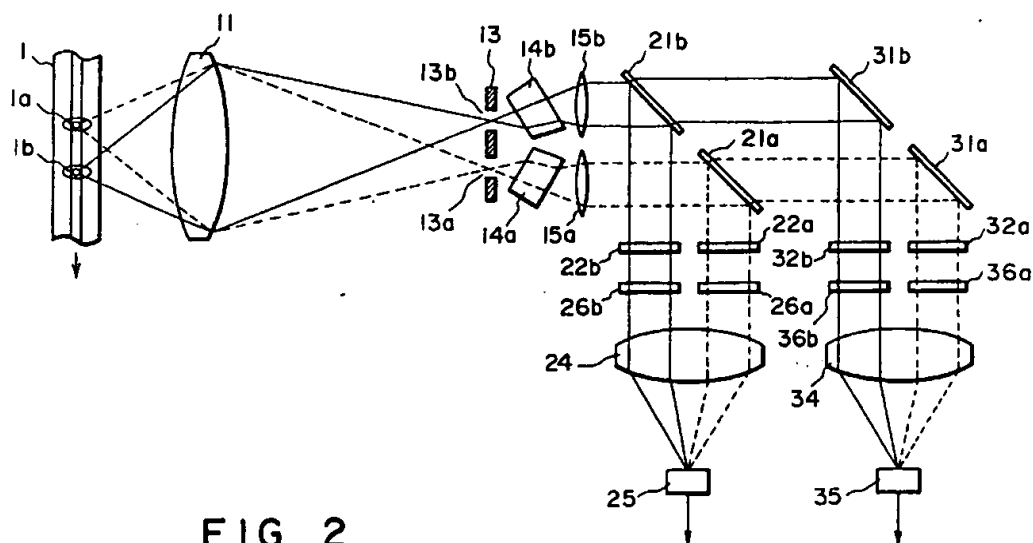


FIG. 2

The portion includes a flow cell 1 defining a one-dimensional arrangement of examination regions 1a, 1b. A liquid carrying specimens (or particles) is pumped through the flow cell, so that the specimens may be examined optically at the linear

array of examination regions. In particular, the examination regions are radiated with laser beams, and light is detected from the examination regions by detectors 25, 35. Ito also illustrates optical systems having larger linear arrangements of three or four examination regions in a flow cell (see Figures 14 and 18, respectively).

Ito does not teach or suggest positioning a plurality of compositions automatically at an examination site, with the compositions disposed in a two-dimensional array. Yet, such positioning of compositions disposed in such a spatial array may have numerous advantages over the one-dimensional flow-based system of Ito. In particular, by using a two-dimensional array of compositions, researchers may analyze the compositions, or subsets thereof, in arbitrary orders, for arbitrary periods of time, rather than in the order in which the samples flow by and for no longer than the time it takes for the samples to flow by. (Flow rates cannot be set arbitrarily slow, since diffusion, convection, and the like always will cause soluble or suspended samples to move and intermingle.) Moreover, by using a two-dimensional array of compositions, researchers may be able to perform an arbitrary number of measurements on the compositions, or subsets thereof, for example, repeating measurements, or performing additional measurements, on selected compositions. In addition, by using a two-dimensional array of compositions, researchers may be better able to use assays such as luminescence polarization assays, photobleaching recovery assays, light-scattering assays, and the like that are sensitive to molecular motion. In contrast, in flow-based systems, the inherent movement of the fluid would necessarily complicate or even overwhelm data analysis, particularly for larger samples such as macromolecules or beads that move slowly and that would be particularly affected by inhomogeneities in fluid flow applying

uneven forces (e.g., torques) on different portions of the sample. In summary, the claimed invention enables the use of assay formats and assay conditions that simply cannot be used with Ito.

Thus, in view of these differences and advantages, among others, currently amended claim 1 is patentable over the art of record and should be allowed.

Claims 2-20 depend from claim 1 and therefore should be allowed for depending from an allowable base claim, among other reasons.

*B. Claims 21-24*

The Examiner rejected independent claim 21 under 35 U.S.C. § 102(e) as being anticipated by Ito. Applicants disagree, contending that the claim is patentable as written. Nevertheless, to expedite issuance of a patent, and to more particularly point out and distinctly claim aspects of the invention, applicants have amended claim 21. Amended claim 21 is supported by original claim 21, and by disclosure in the present application and in parent application Serial No. 09/629,599, as detailed above in relation to claim 1.

Currently amended claim 21 is directed to a method of performing optical analysis on a plurality of compositions. The method includes, in part, a step of positioning the plurality of compositions automatically at an examination site in a multi-mode instrument, with the compositions disposed in a two-dimensional array. As described above, Ito does not teach or suggest positioning compositions disposed in a two-dimensional array. Therefore, for at least these reasons, neither Ito nor any other art of record teaches or suggests a method of performing optical analysis as recited by currently amended claim 21. Accordingly, claim 21 should be allowed.

Claims 22-24 depend from claim 21 and therefore should be allowed for depending from an allowable base claim, among other reasons.

C. Claims 25-26

The Examiner rejected independent claim 25 under 35 U.S.C. § 102(e) as being anticipated by Ito. Applicants disagree, contending that the claim is patentable as written. Nevertheless, to expedite issuance of a patent, and to more particularly point out and distinctly claim aspects of the invention, applicants have amended claim 25. Amended claim 25 is supported by original claim 25, and by disclosure in the present application and in parent application Serial No. 09/629,599, as detailed above in relation to claim 1.

Currently amended claim 25 is directed to a system for performing optical analysis on a plurality of compositions. The system includes, in part, a multi-mode instrument configured to detect light automatically from the plurality of compositions in a first optical measurement mode and from one or more of the compositions in a second, different optical measurement mode, where the plurality of compositions are disposed in a two-dimensional array. As described above, Ito does not teach or suggest positioning compositions disposed in a two-dimensional array. Therefore, for at least these reasons, neither Ito nor any other art of record teaches or suggests a method of performing optical analysis as recited by currently amended claim 25. Accordingly, claim 25 should be allowed.

Claim 26 depends from claim 25 and therefore should be allowed for depending from an allowable base claim, among other reasons.

**II. Claim Rejections – 35 U.S.C. § 103**

The Examiner rejected dependent claim 5 under 35 U.S.C. § 103(a) as being unpatentable over Ito. Applicants disagree. However, the rejection is moot in light of amendments to claims 1 and 5. Therefore, claim 5 should be allowed for depending from an allowable claim 1, among other reasons.

**III. New Claims**

Applicants have added new claims 27 and 28, which depend from independent claim 1. Claims 27 and 28 are directed to a method of optical analysis including, in part, a step of positioning compositions disposed in a microplate and a biochip, respectively. Support for these new claims is included in the claims as originally filed and, for example, on page 30, lines 9-12 of the present application. Claims 27 and 28 are allowable over the art of record for at least the reasons described above for claim 1.

**IV. Conclusion**

Applicants believe that this case is now in condition for allowance, in view of the above amendments and remarks. If a telephone interview would in any way advance prosecution of the application, please contact the undersigned attorney.

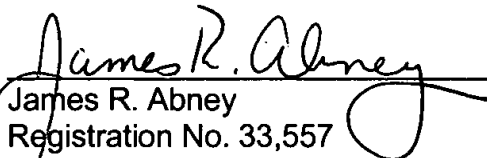
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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on October 13, 2003.

  
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Respectfully submitted,

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